

Exhibit 2

Charted Claims

Non-Method Claim: 1

US8788360	Sony's Xperia 1 ("The Accused Product")
<p>1. A system for processing a wireless request over a network based on a human-perceptible advertisement for advertising to consumers a product or service offered by a vendor, the advertisement attached with at least one radio frequency identification (RFID) tag, the at least one RFID tag being configured to transmit a wireless identification transmission signal representing information</p>	<p>The accused product utilizes a system (e.g., NFC (Near Field Communication)) for processing a wireless request (e.g., request to open the content of the NFC tag or activate certain functions on the device by tapping on the NFC Tag) over a network based on a human-perceptible advertisement for advertising to consumers a product or service (e.g., information about a product or service) offered by a vendor (e.g., a poster, on a billboard advertisement, or beside a product in a retail store), the advertisement (e.g., information about a product or service) attached with at least one radio frequency identification (RFID) tag (e.g., NFC tag), the at least one RFID tag (e.g., NFC tag) being configured to transmit a wireless identification transmission signal (e.g., displays the content collected by scanning an NFC Tag) representing information pertaining to the product or service (e.g., information about a product or service) offered by a vendor (e.g., a poster, on a billboard advertisement, or beside a product in a retail store)</p> <p>As shown below, Sony's Xperia 1 discloses an NFC (Near Field Communication) connectivity feature wherein, upon device scanning a tag (e.g., a wireless request), gives user more information about a product or service (e.g., advertisement for advertising to consumers a product or service), thereby activating certain functions on the device. The tags provides detailed information about the products and services provided on a poster, on a billboard advertisement, or beside a product in a retail store (e.g., product or service offered by a vendor).</p>

pertaining to the product or service offered by a vendor comprising:

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NFC (Near Field Communication)

NFC is a wireless technology with a maximum range of one centimeter, so the devices sharing data must be held close to each other.

The NFC detection area is located on the back of the device. Hold your device close to another device or an NFC reader so that the N-Marks touch. Make sure that both devices have the NFC function turned on and that the screen of your device is active and unlocked.

Note

- Using certain applications, some NFC functions can be enabled even when the device is switched off. Note that not all devices support this feature.

devices support this feature.

To scan NFC tags

Your device can scan various kinds of NFC tags to receive additional information, such as a web address. For example, it can scan embedded tags on a poster, on a billboard advertisement, or beside a product in a retail store.

- Place your device over the tag so that the N-Mark touches it. Your device scans the tag and displays the content collected. Tap the content of the tag to open it.

To connect to an NFC compatible device


You can connect your device to other NFC compatible devices produced by Sony, such as a speaker or a headphone. When establishing this kind of connection, refer to the User guide of the compatible device for more information.

Note

- You may need to have Wi-Fi or Bluetooth activated on both devices for the connection to work.

<https://helpguide.sony.net/mobile/xperia-1m3/v1/en/contents/TP1000467589.html>

<https://helpguide.sony.net/mobile/xperia-1m2/v1/en/contents/TP0003057702.html>

<div data-bbox="520 215 695 261">  User Guide </div> <div data-bbox="520 293 909 711"> <div>Software update features +</div> <div>Xperia 1 features +</div> <div>Getting started +</div> <div>Device security +</div> <div>Learning the basics +</div> <div>Battery and maintenance +</div> <div>Backing up and synchronizing data +</div> <div>Downloading applications +</div> </div>		<div data-bbox="1045 232 1167 256">< User Guide</div> <div data-bbox="1045 289 1451 329"> NFC (Near Field Communication) </div> <div data-bbox="1045 345 1843 443"> <p>Use NFC to share data with other devices, such as videos, photos, web page addresses, music files, or contacts. You can also use NFC to scan tags that give you more information about a product or service, and tags that activate certain functions on your device.</p> </div> <div data-bbox="919 443 1843 516"> <p>advertising to consumers a product or service offered by a vendor, attached with RFID tag</p> <p>NFC is a wireless technology with a maximum range of one centimeter, so the devices sharing data must be held close to each other.</p> </div> <div data-bbox="1045 540 1843 630"> <p>The NFC detection area is located on the back of the device. Hold your device close to another device or an NFC reader so that the N-Marks touch. Make sure that both devices have the NFC function turned on and that the screen of your device is active and unlocked.</p> </div> <div data-bbox="1066 670 1108 695"> Note </div> <div data-bbox="1066 719 1843 743"> <ul style="list-style-type: none"> The NFC detection area is usually located in the center of the back of the device. See Overview </div>
<div data-bbox="499 751 1728 824"> https://helpguide.sony.net/mobile/xperia-1/v1/en-us/contents/nfc-(near-field-communication).html </div> <div data-bbox="520 881 909 1411"> <div>Music +</div> <div>Camera +</div> <div>Photos and videos in Album +</div> <div>Connectivity -</div> <div>Mirroring the screen of your device wirelessly on a TV</div> <div>Connecting your device to USB accessories</div> <div>NFC (Near Field Communication)</div> <div>Using your device as a wallet</div> <div>Bluetooth wireless technology</div> </div>		<div data-bbox="1045 898 1224 930"> Scanning NFC tags </div> <div data-bbox="1045 946 1864 1036"> <p>Your device can scan various kinds of NFC tags to receive additional information, such as a web address. For example, it can scan embedded tags on a poster, on a billboard advertisement, or beside a product in a retail store.</p> </div> <div data-bbox="1308 1036 1644 1060"> <p>product or service offered by a vendor</p> </div> <div data-bbox="1045 1076 1234 1101"> To scan an NFC tag </div> <div data-bbox="1045 1133 1822 1198"> <ul style="list-style-type: none"> Place your device over the tag so that the N-Mark touches it. Your device scans the tag and displays the content collected. Tap the content of the tag to open it. </div> <div data-bbox="1045 1247 1392 1271"> Connecting to an NFC compatible device </div> <div data-bbox="1045 1287 1864 1377"> <p>You can connect your device to other NFC compatible devices produced by Sony, such as a speaker or a headphone. When establishing this kind of connection, refer to the User guide of the compatible device for more information.</p> </div>

[https://helpguide.sony.net/mobile/xperia-1/v1/en-us/contents/nfc-\(near-field-communication\).html](https://helpguide.sony.net/mobile/xperia-1/v1/en-us/contents/nfc-(near-field-communication).html)

Near Field Communication Technology Standards

When developing near field communication devices and new technology, NFC standards must be met. Standards exist to ensure all forms of near field communication technology can interact with other NFC compatible devices and will work with newer devices in the future. Two major specifications exist for NFC technology: ISO/IEC 14443 and ISO/IEC 18000-3. The first defines the ID cards used to store information, such as that found in NFC tags. The latter specifies the RFID communication used by NFC devices.

ISO/IEC 18000-3 is an international standard for all devices communicating wirelessly at the 13.56MHz frequency using Type A or Type B cards, as near field communication does. The devices must be within 4cm of each other before they can transmit information. The standards explain how a device and the NFC tag it is reading should communicate with one another. The device is known as the interrogating device while the NFC tag is simply referred to as the tag.

<http://nearfieldcommunication.org/technology.html>

The two devices create a high frequency magnetic field between the loosely coupled coils in both the interrogating device and the NFC tag. Once this field is established, a connection is formed and information can be passed between the interrogator and the tag. The interrogator sends the first message to the tag to find out what type of communication the tag uses, such as Type A or Type B. When the tag responds, the interrogator sends its first commands in the appropriate specification.

The tag receives the instruction and checks if it is valid. If not, nothing occurs. If it is a valid request, the tag then responds with the requested information. For sensitive transactions such as credit card payments, a secure communication channel is first established and all information sent is encrypted.

NFC tags function at half duplex while the interrogator functions at full duplex. Half duplex refers to a device that can only send or receive, but not both at once. Full duplex can do both simultaneously. A NFC tag can only receive or send a signal, while the interrogating device can receive a signal at the same time it sends a command. Commands are transmitted from the interrogator using PJM (phase jitter modulation) to modify the surrounding field and send out a signal. The tag answers using inductive coupling by sending a charge through the coils in it. Meeting these specifications ensures all NFC devices and tags can communicate effectively with one another.

<http://nearfieldcommunication.org/technology.html>

	<p>ISO/IEC 18000-63:2013 specifies the physical and logical requirements for a passive-backscatter, Interrogator-Talks-First (ITF) systems. The system comprises Interrogators, also known as readers, and tags, also known as labels. An Interrogator receives information from a tag by transmitting a continuous-wave (CW) RF signal to the tag; <u>the tag responds by modulating the reflection coefficient of its antenna, thereby backscattering an information signal to the Interrogator.</u> The system is ITF, meaning that a tag modulates its antenna reflection coefficient with an information signal only after being directed to do so by an Interrogator.</p> <p>ISO/IEC 18000-63:2013 contains Type C.</p> <p>Type C uses PIE in the forward link and a random slotted collision-arbitration algorithm.</p> <p>ISO/IEC 18000-63:2013 specifies https://www.iso.org/standard/59643.html</p>
mobile ordering device of a human consumer who perceives the human-perceptible advertisement, the mobile ordering device comprising a	<p>The accused product is a mobile ordering device (e.g., Sony's Xperia 1) of a human consumer who perceives the human-perceptible advertisement (e.g., information about a product or service), the mobile ordering device (e.g., Sony's Xperia 1) comprising a radio frequency identification reader (e.g., Sony's Xperia 1's NFC detection area (i.e., NFC Tag Reader)) configured to transmit a signal (e.g., transmitting a continuous-wave (CW) RF signal during scanning of tags) to the at least one RFID tag (e.g., NFC tag) attached with the advertisement (e.g., information about a product or service) and to receive in response (e.g., responds) from the at least one RFID tag (e.g., NFC tag) the wireless identification transmission signal (e.g., displays the content collected by scanning an NFC Tag) corresponding to the advertisement (e.g., information about a product or service) and representing information pertaining to the product or service</p>

<p>radio frequency identification reader configured to transmit a signal to the at least one RFID tag attached with the advertisement and to receive in response from the at least one RFID tag the wireless identification transmission signal corresponding to the advertisement and representing information pertaining to the product or service offered by the vendor, the mobile ordering device further configured to accept input</p>	<p>(e.g., information about a product or service) offered by a vendor (e.g., a poster, on a billboard advertisement, or beside a product in a retail store), the mobile ordering device (e.g., Sony's Xperia 1) further configured to accept input (e.g., user tapping the content of the NFC tag) from a consumer, generate an electronic request (e.g., request to open the content of the NFC tag or activate certain functions on the device by tapping on the NFC Tag) with the received information from the wireless identification transmission signal (e.g., displays the content collected by scanning an NFC Tag) and communicate the request (e.g., request to open the content of the NFC tag or activate certain functions on the device by tapping on it) to and receive a response (e.g., open the content of the NFC tag or activate certain functions on the device) from a commerce data system (e.g., provider of the content of NFC Tag) across a network.</p> <p>As shown below, Sony's Xperia 1 (i.e. mobile ordering device) discloses an NFC (Near Field Communication) connectivity feature wherein, upon device scanning a tag (e.g., a wireless request), gives user more information about a product or service (e.g., advertisement for advertising to consumers a product or service). Upon placing the Sony's Xperia 1's NFC detection area or N-Mark (i.e., mobile ordering device comprising a radio frequency identification reader) over an NFC Tag (i.e., RFID Tag), the device scans (i.e., transmit a signal to the at least one RFID tag) the tag and displays the content (i.e., response from the at least one RFID tag) collected. Further by tapping (i.e., accept input from a consumer, generate an electronic request) the collected content, the device opens the content of the NFC tag or activate certain functions on the device (i.e., response from a commerce data system).</p>
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from a consumer, generate an electronic request with the received information from the wireless identification transmission signal and communicate the request to and receive a response from a commerce data system across a network;

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NFC (Near Field Communication)

NFC is a wireless technology with a maximum range of one centimeter, so the devices sharing data must be held close to each other.

The NFC detection area is located on the back of the device. Hold your device close to another device or an NFC reader so that the N-Marks touch. Make sure that both devices have the NFC function turned on and that the screen of your device is active and unlocked.

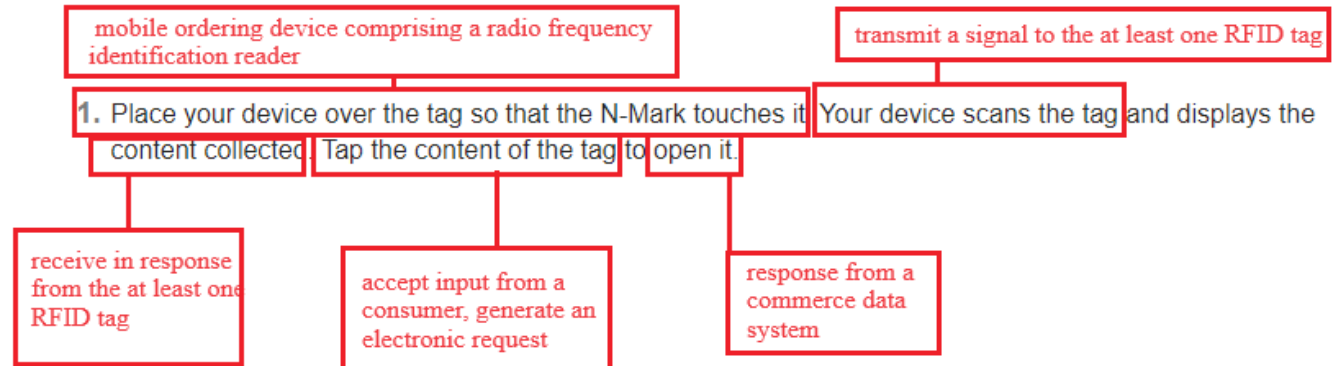
Note

- Using certain applications, some NFC functions can be enabled even when the device is switched off. Note that not all devices support this feature.

<https://helpguide.sony.net/mobile/xperia-1m3/v1/en/contents/TP1000467589.html>

To scan NFC tags

Your device can scan various kinds of NFC tags to receive additional information, such as a web address. For example, it can scan embedded tags on a poster, on a billboard advertisement, or beside a product in a retail store.



<https://helpguide.sony.net/mobile/xperia-1m2/v1/en/contents/TP0003057702.html>

NFC (Near Field Communication)

Reader to transmit a signal to the at least one RFID tag

Use NFC to share data with other devices, such as videos, photos, web page addresses, music files, or contacts. You can also use NFC to scan tags that give you more information about a product or

service, and tags that activate certain functions on your device.

receive a
response from a
commerce data

NFC is a wireless technology with a maximum range of one centimeter, so the devices sharing data must be held close to each other.

frequency identification reader

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[https://helpguide.sony.net/mobile/xperia-1/v1/en-us/contents/nfc-\(near-field-communication\).html](https://helpguide.sony.net/mobile/xperia-1/v1/en-us/contents/nfc-(near-field-communication).html)

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[https://helpguide.sony.net/mobile/xperia-1/v1/en-us/contents/nfc-\(near-field-communication\).html](https://helpguide.sony.net/mobile/xperia-1/v1/en-us/contents/nfc-(near-field-communication).html)

Near Field Communication Technology Standards

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ISO/IEC 18000-3 is an international standard for all devices communicating wirelessly at the 13.56MHz frequency using Type A or Type B cards, as near field communication does. The devices must be within 4cm of each other before they can transmit information. The standards explain how a device and the NFC tag it is reading should communicate with one another. The device is known as the interrogating device while the NFC tag is simply referred to as the tag.

<http://nearfieldcommunication.org/technology.html>

The two devices create a high frequency magnetic field between the loosely coupled coils in both the interrogating device and the NFC tag. Once this field is established, a connection is formed and information can be passed between the interrogator and the tag. The interrogator sends the first message to the tag to find out what type of communication the tag uses, such as Type A or Type B. When the tag responds, the interrogator sends its first commands in the appropriate specification.

The tag receives the instruction and checks if it is valid. If not, nothing occurs. If it is a valid request, the tag then responds with the requested information. For sensitive transactions such as credit card payments, a secure communication channel is first established and all information sent is encrypted.

NFC tags function at half duplex while the interrogator functions at full duplex. Half duplex refers to a device that can only send or receive, but not both at once. Full duplex can do both simultaneously. A NFC tag can only receive or send a signal, while the interrogating device can receive a signal at the same time it sends a command. Commands are transmitted from the interrogator using PJM (phase jitter modulation) to modify the surrounding field and send out a signal. The tag answers using inductive coupling by sending a charge through the coils in it. Meeting these specifications ensures all NFC devices and tags can communicate effectively with one another.

a radio frequency identification reader configured to transmit a signal to the at least one RFID tag attached with the advertisement and to receive in response from the at least one RFID tag the wireless identification transmission signal

<http://nearfieldcommunication.org/technology.html>

	<p>ISO/IEC 18000-63:2013 specifies the physical and logical requirements for a passive-backscatter, Interrogator-Talks-First (ITF) systems. The system comprises Interrogators, also known as readers, and tags, also known as labels. <u>An Interrogator receives information from a tag by transmitting a continuous-wave (CW) RF signal to the tag; the tag responds by modulating the reflection coefficient of its antenna, thereby backscattering an information signal to the Interrogator.</u> The system is ITF, meaning that a tag modulates its antenna reflection coefficient with an information signal only after being directed to do so by an Interrogator.</p> <p>ISO/IEC 18000-63:2013 contains Type C. <small>radio frequency identification reader configured to transmit a signal to the at least one RFID tag attached with the advertisement and to receive in response from the at least one RFID tag</small></p> <p>Type C uses P1E in the forward link and a random slotted collision-arbitration</p> <p>https://www.iso.org/standard/59643.html</p>
<p>the mobile ordering device in communication with the commerce data system, the commerce data system for receiving and processing the request of the mobile ordering device across</p>	<p>The accused product discloses the mobile ordering device (e.g., Sony's Xperia 1) in communication with the commerce data system (e.g., provider of the content of NFC Tag), the commerce data system (e.g., provider of the content of NFC Tag) for receiving and processing the request (e.g., request to open the content of the NFC tag or activate certain functions on the device by tapping on the NFC Tag) of the mobile ordering device (e.g., Sony's Xperia 1) across the network (e.g., internet), and responding to the request (e.g., request to open the content of the NFC tag or activate certain functions on the device by tapping on the NFC Tag) by sending information (e.g., open the content of the NFC tag or activate certain functions on the device) to the mobile ordering device (e.g., Sony's Xperia 1) via the network, the information associated with the wireless identification transmission signal (e.g., displays the content collected by scanning an NFC Tag).</p> <p>As shown below, Sony's Xperia 1 (i.e. mobile ordering device) discloses an NFC (Near</p>

the network, and responding to the request by sending information to the mobile ordering device via the network, the information associated with the wireless identification transmission signal.

Field Communication) connectivity feature wherein, upon device scanning a tag (e.g., a wireless request), gives user more information about a product or service (e.g., advertisement for advertising to consumers a product or service). Upon tapping (i.e., accept input from a consumer, generate an electronic request) the collected content, the device opens the content of the NFC tag or activate certain functions on the device (i.e., response from a commerce data system).

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NFC (Near Field Communication)

NFC is a wireless technology with a maximum range of one centimeter, so the devices sharing data must be held close to each other.
The NFC detection area is located on the back of the device. Hold your device close to another device or an NFC reader so that the N-Marks touch. Make sure that both devices have the NFC function turned on and that the screen of your device is active and unlocked.

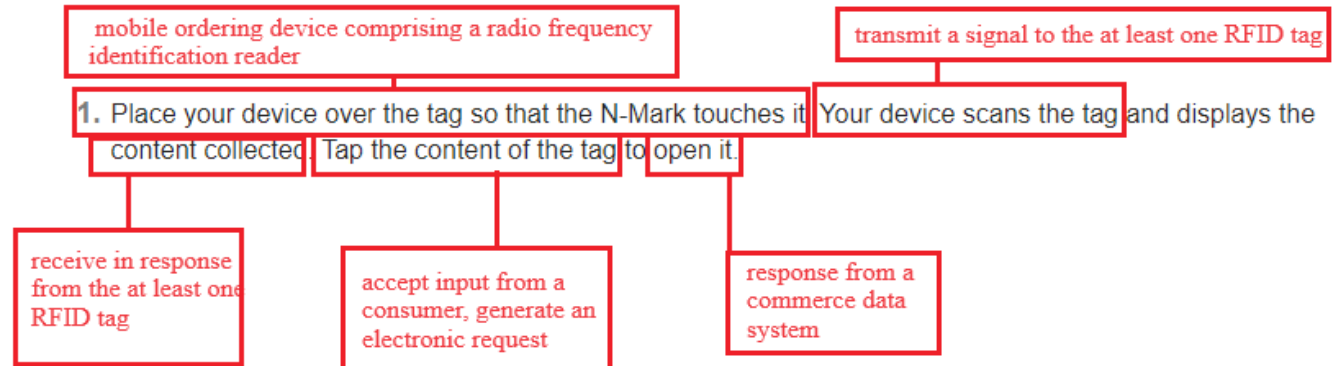
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<https://helpguide.sony.net/mobile/xperia-1m3/v1/en/contents/TP1000467589.html>

To scan NFC tags

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<https://helpguide.sony.net/mobile/xperia-1m2/v1/en/contents/TP0003057702.html>

NFC (Near Field Communication)

Reader to transmit a signal to the at least one RFID tag

Use NFC to share data with other devices, such as videos, photos, web page addresses, music files, or contacts. You can also use NFC to scan tags that give you more information about a product or

service, and tags that activate certain functions on your device.

receive a
response from a
commerce data

NFC is a wireless technology with a maximum range of one centimeter, so the devices sharing data must be held close to each other.

frequency identification reader

The NFC detection area is located on the back of the device. Hold your device close to another device or an NFC reader so that the N-Marks touch. Make sure that both devices have the NFC function turned on and that the screen of your device is active and unlocked.

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